

Description of four new *Marginella* species, from the Eastern and Southern Cape, South Africa

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ABSTRACT Four *Marginella* species from the Eastern and Southern Cape of South Africa are described. They include *Marginella zigzag*, *Marginella violea*, *Marginella jeareyae* and *Marginella dyoseires*.

KEYWORDS *Marginella*, *M. zigzag*, *M. violea*, *M. jeareyae*, *M. dyoseires*, Fish River, Hougham Park and Jeffreys Bay

INTRODUCTION

Four species of *Marginella* Lamarck 1799, although known for some time, and mislabeled, show consistent differences and are therefore described from specific areas of the Eastern and Southern Cape.

ABBREVIATIONS

Coll:	Collection of
n. sp.	New species
NMSA	KwaZulu-Natal Museum, Pietermaritzburg, South Africa

MATERIAL AND METHODS

Specimens were photographed by Nicholas Page with a Canon 800D utilizing a dedicated photographic table with adjustable overhead arm. Lenses utilized were a Canon 50 mm and Canon 100 mm Macro lenses. White LED photographic lamps were utilized for lighting with customized, in-camera white balance. Darktable elements were utilized to crop and orientate images.

Images for Plate 1 Figure 2 were photographed by Mark Page. Images for Figures 1-2 were supplied for incorporation by R. Aiken. Images

for Plate 6 Figure 1-3 were supplied by A. Seccombe. Image for Plate 6 Figure 4 was supplied by S. Veldsman.

SYSTEMATICS

Family: Marginellidae Fleming, 1828

Genus: *Marginella* Lamarck, 1799

Marginella violea

R. Aiken and A. Seccombe, n. sp.
(Figure 1, Plate 1)

Description. Shells medium, ranging in size from 25 to 29 mm, sturdy, biconic, with blunt, pointed and stepped spire with pale cream protoconch. External varix strong, columella with four strong, pale, continuous plicae covering the lower half thereof. Varix white, slightly curved with radial dashes on the outer edge. Whorl smooth and shiny in uncommon fresh material. Colour of shells is a consistent greyish-violet with three intermittent bands of broken lighter colour. Base of shells has a pale zone overlaid with thin deep brown axial waves.

Type material. The type material of the holotype and paratypes of *M. violea* are as follows:

Holotype:	27.1 x 16.0 mm. (Figure 1, Plate 2.1). NMSA P1892/T4527. Donated by R. Aiken.
Paratype 1:	28.0 x 16.9 mm. Coll: A. Seccombe. (Plate 1.1)
Paratype 2:	28.15 x 16.69 mm. Coll: R. Aiken. (Plate 1.2, Plate 2.2)
Paratype 3:	28.0 x 15.0 mm. Coll: S. Veldsman.
Paratype 4:	25.5 x 15.2 mm. Coll: R. Aiken. (Plate 1.3)
Paratype 5:	29.5 x 17.0 mm. Coll: A. Seccombe. (Plate 1.4)
Paratype 6:	27.1 x 16.0 mm. Coll: J. Rosado. (Plate 1.5)
Paratype 7:	26.1 x 15.8 mm. Coll: S. Veldsman.
Paratype 8:	27.4 x 17.0 mm. Coll: M. Lussi. (Plate 1.6)
Paratype 9:	27.2 x 15.6 mm. Coll: R. Aiken.
Paratype 10:	27.0 x 15.5 mm. Coll: A. Seccombe.
Paratype 11:	24.1 x 14.5 mm. Coll: D. Berschauer.
Paratype 12:	26.8 x 16.1 mm. Coll: M. Page.
Paratype 13:	28.9 x 16.5 mm. Coll: R. Aiken. (Plate 2.2)

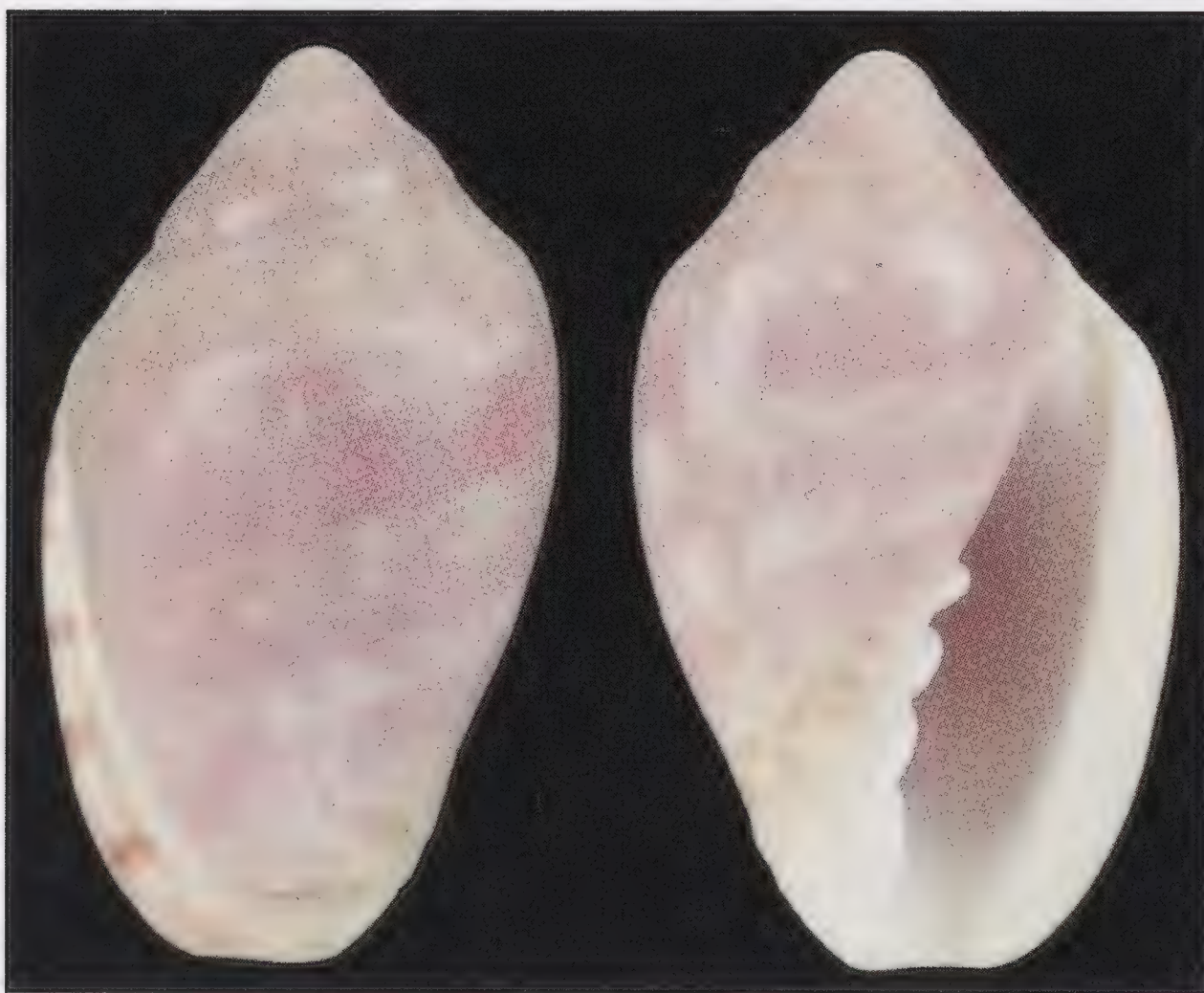


Figure 1. *Marginella violea* - Holotype

Distribution. Beached in the Gonubie / East London area, alluding to a shallow water existence.

Etymology. From the Latin violeus, “of a pale to moderate greyish-violet colour”.

DISCUSSION

This species has masqueraded as a worn or faded *M. rubrovittata* S.G. Veldsman, J.H. Veldsman & R. Aiken, 2016 (previously the ‘red’ *M. ornata* Redfield, 1870), for a long time. It is morphologically similar, but never wine red, and unlike *rubrovittata*, has a pale to white protoconch. It may also be mistaken for *M. roseaflavescens* S.G. Veldsman, J.H. Veldsman & R. Aiken, 2016, but this latter species is characterised by the inclusion of yellow colour in the area of the protoconch, whorl, and mouth. Even in a fresh, shiny state, the colour of *violea* remains light, and is devoid of any radial black markings.

Marginella jeareyae

R. Aiken and A. Seccombe, n. sp.
(Figures 2-3, Plate 4, Plate 5.1-2)

Description. Shells very large for the genus, biconic, ranging from 35.3 to 44.8 mm in size, sturdily built with sharply angled broad shoulder and pointed, somewhat depressed spire. Protoconch white, external varix strong, inner

labrum smooth. Columella with four strong, continuous pleats, taking up the lower half thereof. Aperture broad, surface of whorl smooth. Background colour pale cream overlaid with an attractive pattern of light and dark brown (to almost black in single live specimen) broken axial markings, in waves, from suture to base. This pattern forms two vague deeper brown bands on the whorl.



Figure 2. *Marginella jeareyae* - Holotype

The animal is pale cream with sporadic, fairly dense red spots. (Figure 3).



Figure 3. *Marginella jeareyae* – Live.

Distribution. From Port Alfred to Port Elizabeth, rarely found beached. Majority of material originates from a single locale, Hougham Park, Port Elizabeth.

Etymology. Named for Mariette Jearey, who found good specimens on Hougham Park beach.

Type material. The type material of the holotype and paratypes of *M. jeareyae* are as follows:

Holotype:	42.1 x 25.3 mm. (Figure 2). NMSA-Mol OP2011/T4563. Donated by R. Aiken.
Paratype 1:	35.6 x 21.7 mm. A. Seccombe Collection. Port Alfred.
Paratype 2:	37.6 x 20.8 mm. R. Aiken Collection. Hougham Park, beached. (Plate 4.1, Plate 5.1).
Paratype 3:	35.7 x 20.1 mm. R. Aiken Collection. Hougham Park, beached.
Paratype 4:	35.37 x 19.5 mm. R. Aiken Collection. Hougham Park, beached.
Paratype 5:	38.1 x 23 mm. R. Aiken Collection. Hougham Park, beached.
Paratype 6:	38.8 x 30.77 mm. A. Seccombe Collection. East London, Beached.
Paratype 7:	44.4 x 25.3 mm. A. Seccombe Collection. East London, Beached.
Paratype 8:	38.6 x 21.95 mm. R. Aiken Collection. Hougham Park, beached.
Paratype 9:	37.8 x 20.6 mm. R. Aiken Collection. Hougham Park, beached.

DISCUSSION

This large and attractive species has long been labeled in collections as a *M. nebulosa* (Röding, 1798) (Plate 5.3-5.4). *M. jeareyae* is far larger on average, has a different pattern from *nebulosa*, is noticeably broader with sharp shoulder angle, and margin that finishes lower down on the whorl. The colouration of *nebulosa* is pinkish grey, and does not show banding on the whorl, as with *jeareyae*.

It may also be compared with *Marginella abyssinebulosa* Massier, 2004 (Plate 5.5-5.6), but the latter species is always much narrower and has a dense, dark pattern, distinctive from *jeareyae*.

The species that has morphological similarities with *jeareyae* is *M. felixi* Massier, 2004 (Plate 5.7-5.8), however, they are separable as follows: *felixi* is from deeper water (never beaches), from Mosselbay area, much further south of the *jeareyae* locale and *felixi* has a unique distinguishable feature in the group, namely

radial rows of thin, dark dashes covering the entire dorsum.

Marginella dyoseires

R. Aiken and A. Seccombe, n. sp.

(Figure 4, Plate 6)

Description. Shells large for the genus, narrow biconic, ranging from 28 to 37 mm, sturdy with high pointed spire and rounded shoulder. Protoconch translucent white. External varix strong, inner labrum smooth, with faint posterior notch. Columella with four continuous pleats taking up the lower 60 percent of the narrow aperture. Surface smooth, background colour cream overlaid with two distinct rows or bands of broken virtually black colour, laid down in a rough pattern of transverse lines. There are small, randomly placed dots between the banding.

Type material. The type material of the holotype and paratypes of *M. dyoseires* are as follows:

Holotype:	28 mm (Plate 6.1). NMSA-Mol OP2012/T4564. Donated by A. Seccombe. False Bay.
Paratype 1:	32 mm. A. Seccombe Collection. False Bay. (Plate 6.2)
Paratype 2:	35.43 x 19.54 mm. S. Veldsman Collection. Off Plettenberg Bay, in 100 to 140 metres. (Plate 6.4).
Paratype 3:	32.5 mm. A. Seccombe Collection. False Bay. (Plate 6.3).
Paratype 4:	37 x 19.5 mm. R. Aiken Collection. Danger Point 40 metres. (Plate 6.5).

Distribution. From deep water Plettenberg Bay to the eastern point of False Bay.

Etymology. From the Greek: Dyo Seires meaning two rows.

DISCUSSION

This rare species can only be mistaken for *M. hayesi* (Plate 6.6), but differs in being narrower and never has the full pattern prevalent on the whorl of *hayesi*.

Marginella zigzag

A. Seccombe and R. Aiken, n. sp.

(Plate 3.1-3.5)

Description. Shell size medium, ranging from 25 to 32 mm, biconic and sturdy. Shoulder angled, surface smooth, spire high and somewhat blunt. Aperture broad. Strong external varix, columella plications on lower half of columella, continuous and oblique, numbering four. Labial edge white, with short, red radial lines on the far edge only. Colour

deep pink to grey, depending on freshness. Pattern consists of axial waves of jagged colour, often with distinctive pattern of dark, long zigzags.

Distribution. Beached and dredged between Fish River and East London.

Etymology. Zigzag. “a line characterised by sharp turns, first to one side, then to the other.”

Type material. The type material of the holotype and paratypes of *M. zigzag* are as follows:

Holotype:	28.2 x 16.3 mm. (Plate 3.5). NMSA-Mol OP2010/T4562. Donated by R. Aiken.
Paratype 1:	27.1 x 15.5 mm. Coll: R. Aiken. (Plate 3.3).
Paratype 2:	24.4 x 15.5 mm. Coll: R. Aiken. (Plate 3.4).
Paratype 3:	29.1 x 17.1 mm. Coll: R. Aiken. (Plate 3.1).
Paratype 4:	25.2 x 14.9 mm. Coll: R. Aiken. (Plate 3.2).

DISCUSSION

Although uncommon, this species has for some time been recognized as different by both authors as well as by the late Arie Jooste, whose 2003 label indicates, dredged off EL [East London], “probably undescribed?”

In this group it is of interest that the deeper water, *M. pondo* S.G. Veldsman, 2017 (Plate 3.6) in far North-eastern Cape has a consistent, fine pattern, *M. lussi* Hayes & Millard, 1995 (Plate 3.7-3.8) from around Coffee Bay a more variable pattern, and *M. zigzag*, further south, a “rougher” pattern.

ACKNOWLEDGEMENTS

We acknowledge and thank: Nicholas Page for photography; Mark Page for photography, collation of photos, proof reading and layout;

and Elodie Heyns Veale, for kindly supplying museum accession numbers.

LITERATURE CITED

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Cite as:

Aiken, R. and A. Seccombe. 2022. Description of four new *Marginella* species, from the Eastern and Southern Cape, South Africa. The Festivus 54(3):227-237.

<http://doi:10.54173/F543227>

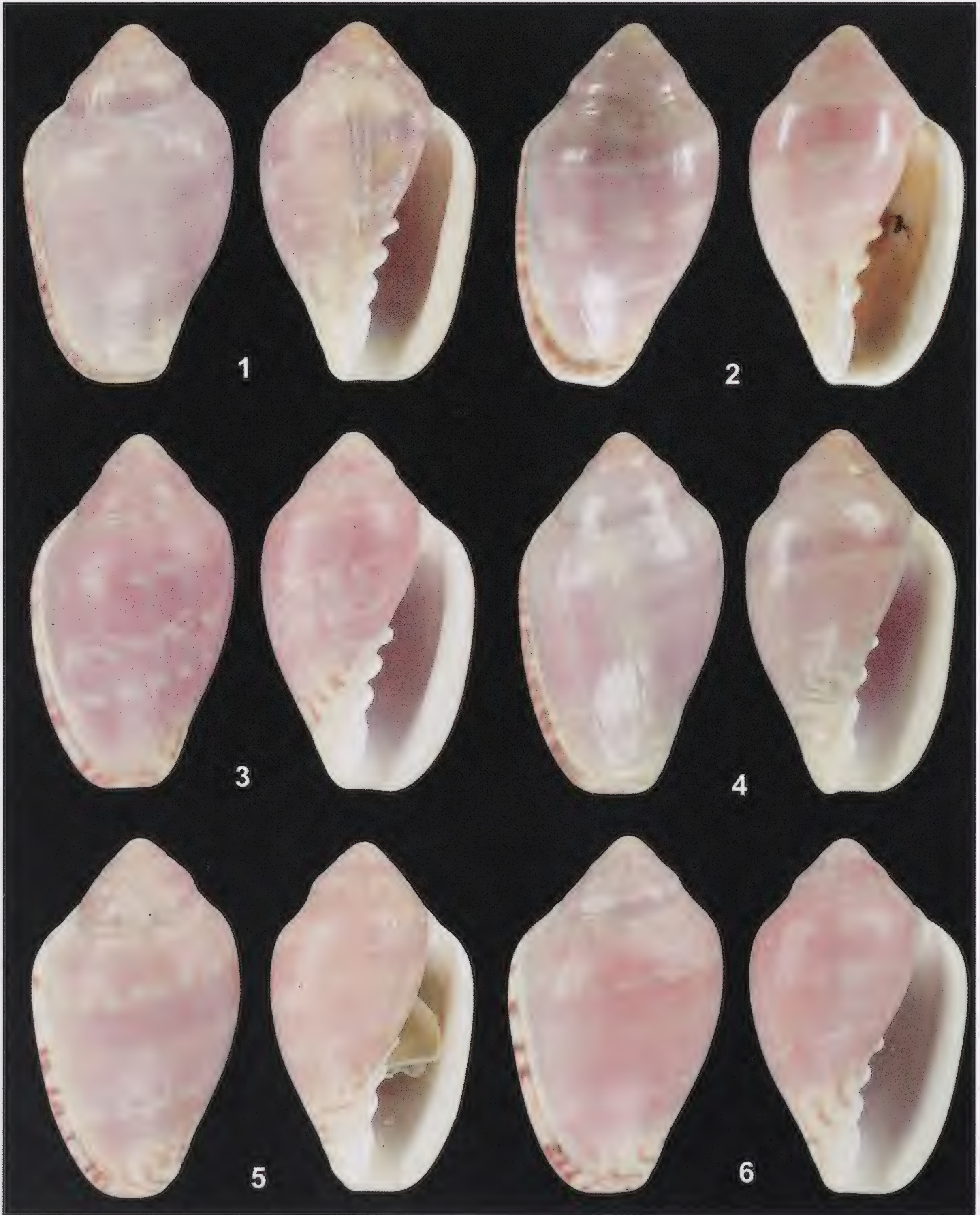


Plate 1. 1= *Marginella violea* Paratype 1 (28 x 16.9 mm); 2= *Marginella violea* Paratype 2 (28.15 x 16.69 mm); 3= *Marginella violea* Paratype 4 (25.5 x 15.2 mm); 4= *Marginella violea* Paratype 5 (29.5 x 17 mm); 5= *Marginella violea* Paratype 6 (27.1 x 16 mm); 6= *Marginella violea* Paratype 8 (27.4 x 17 mm).

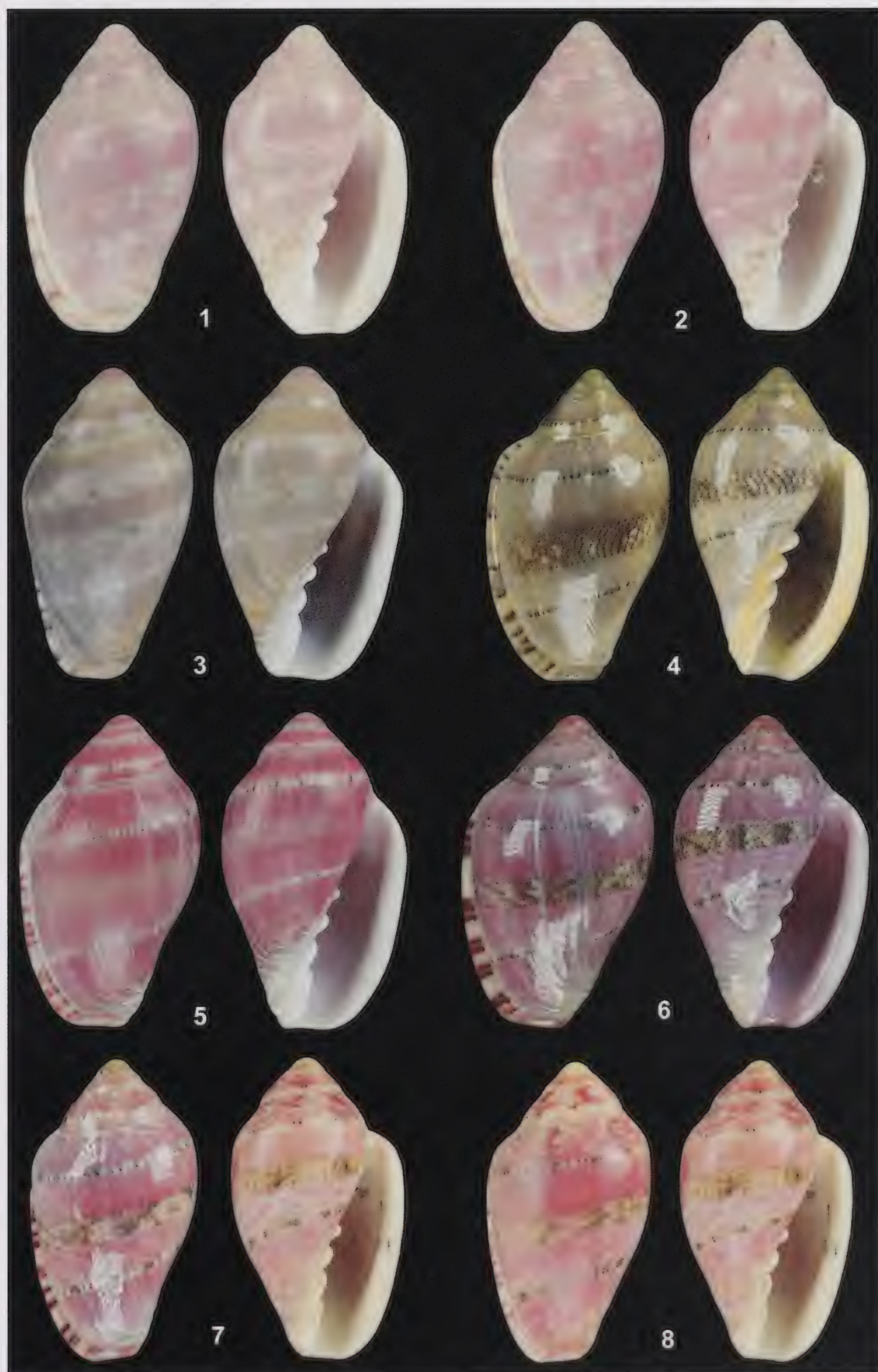


Plate 2. 1= *Marginella violea* Holotype (27.1 x 16 mm); 2= *Marginella violea* Paratype 2 (28.15 x 16.69 mm). 3= *Marginella ornata* grey (23.3 x 14.0 mm); 4= *Marginella donaikei* (26.89 x 16.0 mm); 5= *Marginella rubrovittata* (23.86 x 13.3 mm); 6= *Marginella rubrovittata* (23.57 x 14.3 mm); 7= *Marginella roseaflavescens* Paratype 2 (26.44 x 15.52) Coffee Bay; 8= *Marginella roseaflavescens* Paratype 15 (27.31 x 15.49 mm) Coffee Bay.

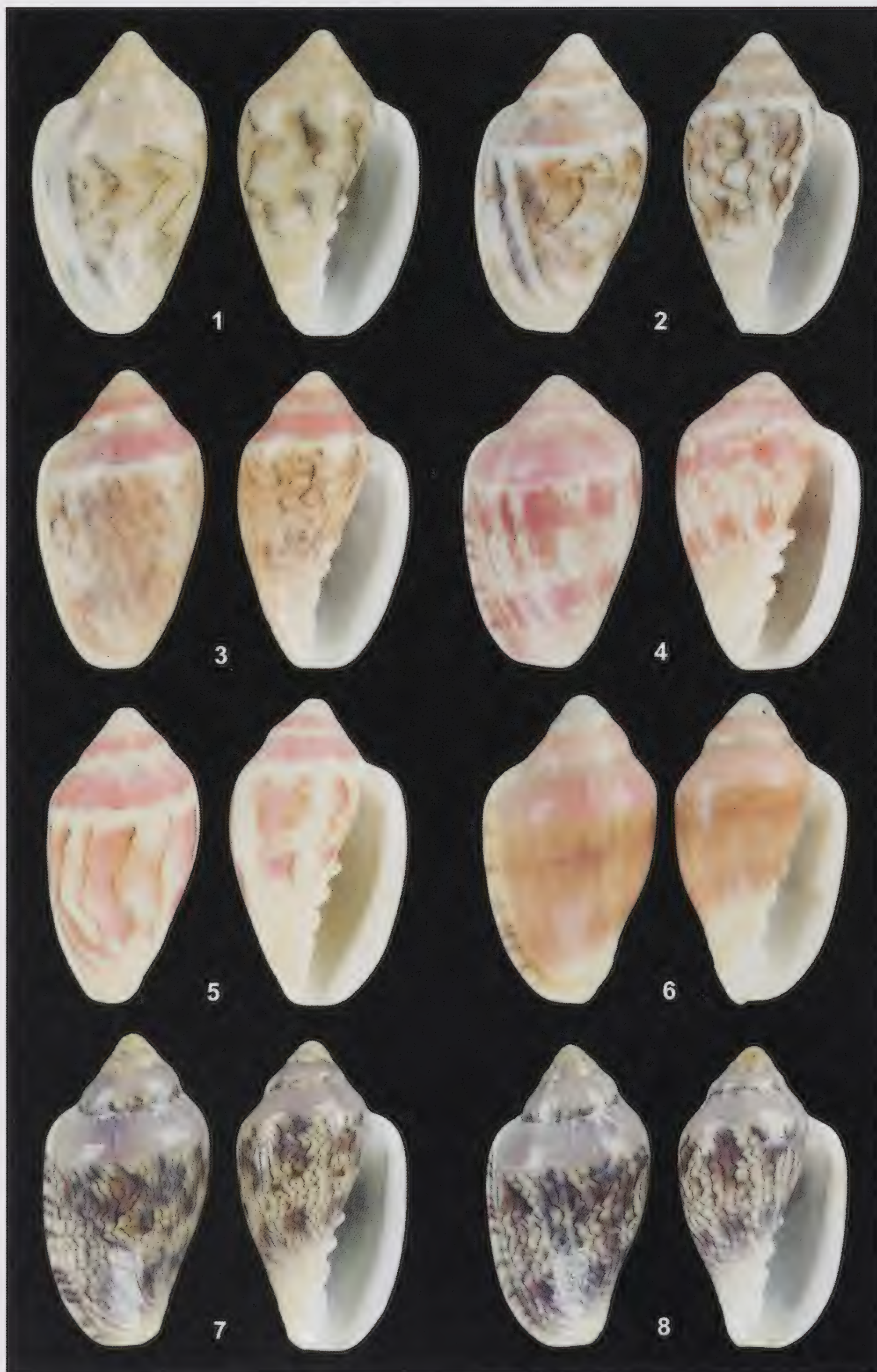


Plate 3. 1= *Marginella zigzag* Paratype 3 (29.1 x 17.1 mm) Port Alfred; 2= *Marginella zigzag* Paratype 4 (25.2 x 14.9 mm) Port Alfred; 3= *Marginella zigzag* Paratype 1 (27.1 x 15.5 mm) Fish River; 4= *Marginella zigzag* Paratype 2 (24.4 x 15.5 mm) Fish River; 5= *Marginella zigzag* Holotype (28.2 x 16.3 mm), Fish River; 6= *Marginella pondo* Paratype 3 (30.68 x 17.27 mm) Mbotyi 90 m; 7= *Marginella lussi* (31 x 16.9 mm) Live; 8= *Marginella lussi* (32.6 x 18.2 mm) Live.



Plate 4. 1= *Marginella jearaye* Paratype 2 (37.6 x 20.8 mm) Hougham Park beached; 2= *Marginella jearaye* Paratype 5 (38.1 x 23.0 mm) Hougham Park beached; 3= *Marginella jearaye* Paratype 7 (44.4 x 25.3 mm) East London beached; 4= *Marginella jearaye* Paratype 8 (38.6 x 21.95 mm) Hougham Park Beached; 5= *Marginella jearaye* Paratype 6 (38.8 x 20.77 mm) East London beached; 6= *Marginella jearaye* Paratype 9 (37.8 x 20.6 mm) Hougham Park Beached.

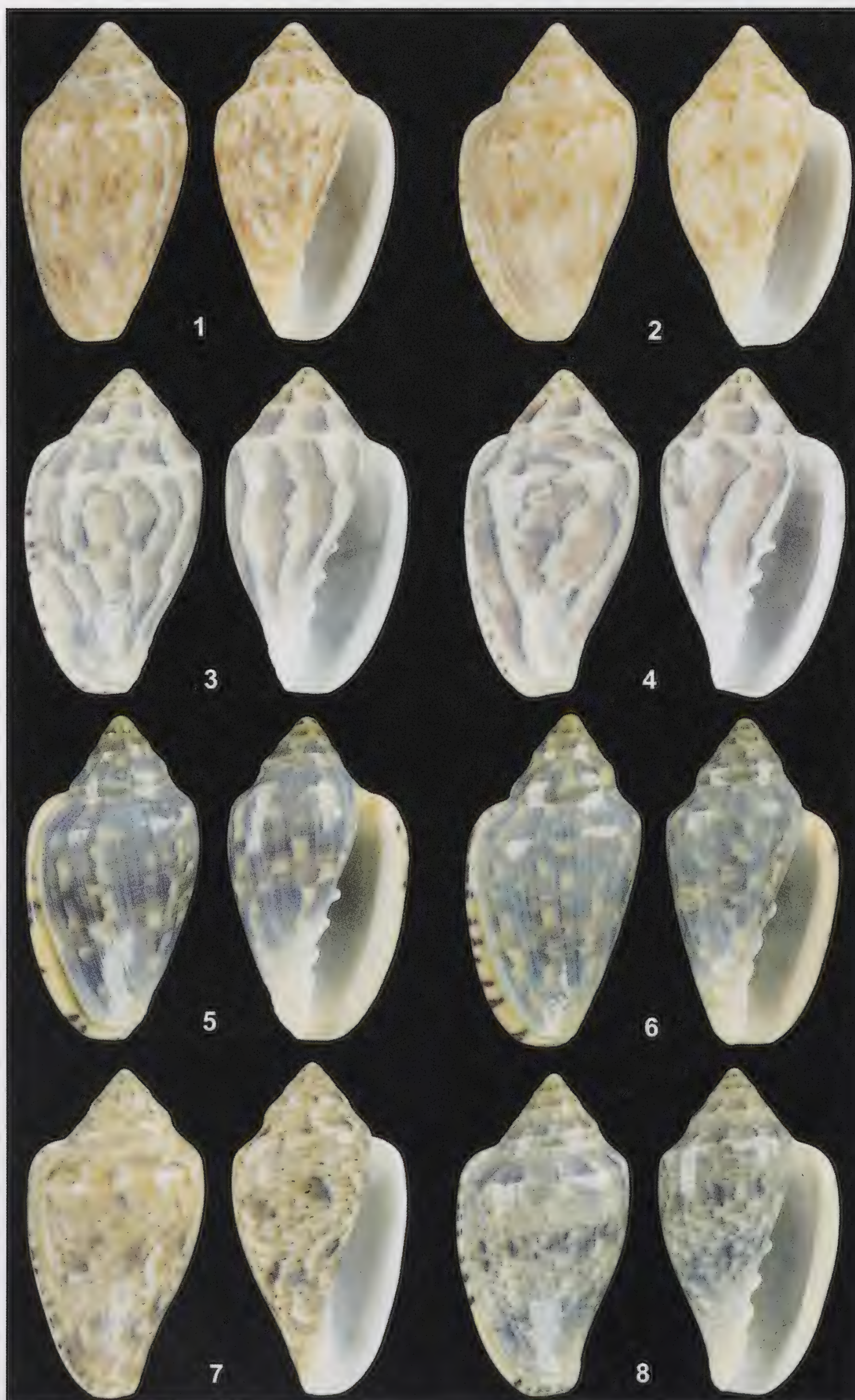


Plate 5. 1= *Marginella jearaye* Paratype 2 (37.6 x 20.8 mm) Hougham Park beached; 2= *Marginella jearaye* Paratype 8 (38.6 x 21.95 mm) Hougham Park Beached; 3= *Marginella nebulosa* (37.1 x 20.3 mm); 4= *Marginella nebulosa* (37.97 x 21.79 mm); 5= *Marginella abbyssinebulosa* (39.63 x 22.34 mm); 6= *Marginella abbyssinebulosa* (40.6 x 20.4 mm); 7= *Marginella felixi* (46.2 x 25.0 mm) Off Mosselbay; 8= *Marginella felixi* (41.0 x 22.4 mm) Off Mosselbay 150 m.



Plate 6. 1= *Marginella dyoseires* Holotype (28 mm) dived in 18-20 m at night eastern False Bay between Gordon's Bay and Rooi Els; 2= *Marginella dyoseires* Paratype 1 (32 mm) dived in 18-20 m at night eastern False Bay between Gordon's Bay and Rooi Els; 3= *Marginella dyoseires* Paratype 3 (32.5 mm) False Bay; 4= *Marginella dyoseires* Paratype 2 (35.43 x 19.54 mm) Plettenberg Bay; 5= *Marginella dyoseires* Paratype 4 (37 x 19.5 mm) Off Danger Point; 6= *Marginella hayesi* (37.1 x 20.98 mm) 15-20 m Bettys Bay, Eastern False Bay.